

WHAT IS CLAIMED IS:

1. A Voice over Internet Protocol (**VoIP**) terminal,
comprising:

a network interface that communicates with a servicing
5 network to service packetized communications;

a processing unit communicatively coupled to the network
interface;

a programmable COder/DECoder (CODEC) communicatively
coupled to and controlled by the processing unit that converts
10 incoming packetized communications to incoming user
communications and that converts outgoing user communications
to outgoing packetized communications according to a selected
coding scheme;

a user interface communicatively coupled to the
15 programmable CODEC that receives the incoming user
communications and that produces the outgoing user
communications;

whereby the processing unit monitors the serviced
packetized communications to determine a communication quality
20 level delivered by the network interface; and

whereby the processing unit chooses the selected coding
scheme from a plurality of supported coding schemes based upon
the communication quality level.

25 2. The VoIP terminal of Claim 1, whereby the processor
communicates with a far-end terminal to determine the selected
coding scheme.

30 3. The VoIP terminal of Claim 1, wherein the supported
coding schemes comprise at least one audio and/or video coding
scheme selected from the group consisting of:

Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721,
CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T
G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728,
35 ITU-T G.722, ITU-T G.722.1, ITU-T G.722.2, GSM-EFR, GSM AMR,

IMA/DVI ADPCM, Microsoft ADPCM, LPC-10E, CELP GSM 06.10,
shorten, Real Audio, MPEG, ACE and MACE.

- 5 4. The VoIP terminal of Claim 1, further comprising:
 a jitter buffer
 whereby the processing unit monitors the latency of the
 jitter buffer to determine the communication quality level.
- 10 5. The VoIP terminal of Claim 1, whereby the processing unit
 further interacts with a far-end terminal in choosing the
 selected coding scheme.
- 15 6. The VoIP terminal of Claim 1, whereby the network
 interface monitors a plurality of APs and selects a servicing
 AP based upon an expected service quality level.
- 20 7. The VoIP terminal of Claim 1, whereby the network
 interface comprises a wireless interface operable to:
 monitor a plurality of access points (APs);
 query at least one of the plurality of APs to determine a
 service quality that could be provided by the AP; and
 registers with a new AP when a service quality to be
 provided by the new servicing AP exceeds a service quality
25 provided by the servicing AP by a predetermined service
 quality level.
- 30 8. The VoIP terminal of Claim 1, wherein the user
 communications are audio communications.
9. The VoIP terminal of Claim 1, wherein the user
 communications are audiovisual communications.
- 35 10. The VoIP terminal of claim 9, wherein the audiovisual
 communications are video conferencing communications.

11. The VoIP terminal of Claim 1, the user communications are video communications.

12. A method of servicing real-time communications to a Wireless Local Area Network (WLAN) terminal, comprising:

receiving incoming and outgoing user communications at a user interface of a WLAN terminal;

5 selecting an initial coding scheme from a plurality of supported coding schemes with a programmable COder/DECoder (CODEC);

converting incoming user communications from packetized communications and outgoing user communications to packetized
10 communications according to the selected coding scheme; and

exchanging packetized communications between a servicing Access Point (AP) of the WLAN and the WLAN terminal at a communication quality level;

monitoring the communication quality level between the
15 servicing AP and the WLAN terminal to determine the communication quality level delivered between the AP and WLAN terminal; and

revising the selected coding scheme from the plurality of supported coding schemes based upon the communication quality
20 level delivered between the AP and WLAN terminal.

13. The method of Claim 12, further comprising:

exchanging packetized communications between the WLAN terminal and a far-end terminal;

25 monitoring a communication quality level between the WLAN terminal and the far-end terminal to determine the communication quality level delivered between the WLAN terminal and the far-end terminal; and

revising the selected coding scheme from the plurality of
30 supported coding schemes based upon the communication quality level delivered between the WLAN terminal and the far-end terminal.

14. The method of Claim 13, wherein the supported coding schemes comprise at least one audio and/or video coding scheme selected from the group consisting of Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722, ITU-T G.722.1, ITU-T G.722.2, GSM-EFR, GSM AMR, IMA/DVI ADPCM, Microsoft ADPCM, LPC-10E, CELP GSM 06.10, shorten, Real Audio, MPEG, ACE and MACE.

15. The method of Claim 13, further comprising monitoring the latency of a jitter buffer to determine the communication quality level between the AP and WLAN terminal, and the communication quality level delivered between the WLAN terminal and the far-end terminal.

16. The method of Claim 12, further comprising interacting with the far-end terminal to revise the selected coding scheme.

17. The method of Claim 12, further comprising monitoring a plurality of APs by the wireless terminal and selecting the servicing AP based upon an expected service quality level.

18. The method of Claim 17, wherein monitoring the plurality of APs further comprises:

 querying at least one of the plurality of APs to determine the expected service quality level from the AP; and

 registering with a new servicing AP when the expected service quality level to be provided by the new servicing AP exceeds the expected service quality level provided by the servicing AP by a predetermined service quality level.

19. The method of Claim 12, wherein the user communications are audio communications.

20. The method of Claim 12, wherein the user communications are audiovisual communications.

5 21. The method of Claim 12, wherein the audiovisual communications are video conferencing communications.

22. The method of Claim 12, wherein the user communications are video communications.

23. A Wireless Local Area Network (WLAN) terminal,
comprising:

5 a wireless interface that communicates with a servicing
Access Point (AP) of the WLAN to service packetized
communications;

a processing unit communicatively coupled to the wireless
interface, whereby the processor communicates with a far-end
terminal;

10 a programmable COder/DECoder (CODEC) communicatively
coupled to and controlled by the processing unit that converts
incoming packetized communications to incoming user
communications and that converts outgoing user communications
to outgoing packetized communications according to a selected
15 coding scheme;

a user interface communicatively coupled to the
programmable CODEC that receives the incoming user
communications and that produces the outgoing user
communications;

20 whereby the processing unit monitors the serviced
packetized communications to determine a communication quality
level delivered between the AP and WLAN terminal, and between
the WLAN terminal and the far-end terminal;

25 whereby the processor communicates with the far-end
terminal to determine a communication quality level delivered
by the far-end terminal; and

30 whereby the processing unit chooses the selected coding
scheme from a plurality of supported coding schemes based upon
the communication quality level between the AP and WLAN
terminal, between the WLAN terminal and the far-end terminal,
and the far-end terminal.

24. The WLAN terminal of Claim 23, wherein the supported
coding schemes comprise at least one audio and/or video coding
35 scheme selected from the group consisting of Huffman encoding,

ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T
G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T G.729, ITU-T
G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722,
ITU-T G.722.1, ITU-T G.722.2, GSM-EFR, GSM AMR, IMA/DVI ADPCM,
5 Microsoft ADPCM, LPC-10E, CELP GSM 06.10, shorten, Real Audio,
MPEG, ACE and MACE.

25. The WLAN terminal of Claim 1, further comprising:
a jitter buffer whereby the processing unit monitors that
10 latency of the jitter buffer to determine the communication
quality level.

26. The WLAN terminal of Claim 25, whereby the wireless
interface monitors a plurality of APs and selects a servicing
15 AP based upon an expected service quality level.

27. The WLAN terminal of Claim 23, whereby the wireless
interface:

monitors a plurality of APs;
20 queries at least one of the plurality of APs to determine
a service quality that could be provided by the AP; and
registers with a new AP when a service quality to be
provided by the new servicing AP exceeds a service quality
provided by the servicing AP by a predetermined service
25 quality level.

28. The WLAN terminal of Claim 1, wherein the user
communications are audio communications.

30 29. The WLAN terminal of Claim 1, wherein the user
communications are audiovisual communications.

30. The WLAN terminal of claim 9, wherein the audiovisual
communications are video conferencing communications.

31. The WLAN terminal of Claim 1, wherein the user communications are video communications.

32. A Wireless Local Area Network (WLAN) terminal,
comprising:

a wireless interface that communicates with a servicing
Access Point (AP) of the WLAN to service packetized
5 communications;

a processing unit communicatively coupled to the wireless
interface;

a programmable COder/DECoder (CODEC) communicatively
coupled to and controlled by the processing unit that converts
10 incoming packetized communications to incoming user
communications and that converts outgoing user communications
to outgoing packetized communications according to a selected
coding scheme;

a user interface communicatively coupled to the
15 programmable CODEC that receives the incoming user
communications and that produces the outgoing user
communications;

whereby the processing unit monitors the serviced
packetized communications to determine a communication quality
20 level delivered by the wireless interface; and

whereby the processing unit chooses the selected coding
scheme from a plurality of supported coding schemes based upon
the communication quality level.

33. The WLAN terminal of Claim 1, whereby the processor
communicates with a far-end terminal to indicate the selected
coding rate.

34. The WLAN terminal of Claim 1, wherein the supported
30 coding schemes comprise at least one audio and/or video coding
scheme selected from the group consisting of:

Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721,
CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T
G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728,
35 ITU-T G.722, ITU-T G.722.1, ITU-T G.722.2, GSM-EFR, GSM AMR,

IMA/DVI ADPCM, Microsoft ADPCM, LPC-10E, CELP GSM 06.10,
shorten, Real Audio, MPEG, ACE and MACE.

- 5 35. The WLAN terminal of Claim 1, further comprising:
 a jitter buffer
 whereby the processing unit monitors the latency of the
 jitter buffer to determine the communication quality level.
- 10 36. The WLAN terminal of Claim 1, whereby the processing unit
 further interacts with a far-end terminal in choosing the
 selected coding scheme.
37. The WLAN terminal of Claim 1, whereby the wireless
15 interface monitors a plurality of APs and selects a servicing
 AP based upon an expected service quality level.
38. The WLAN terminal of Claim 1, whereby the wireless
 interface:
20 monitors a plurality of APs;
 queries at least one of the plurality of APs to determine
 a service quality that could be provided by the AP; and
 registers with a new AP when a service quality to be
 provided by the new servicing AP exceeds a service quality
25 provided by the servicing AP by a predetermined service
 quality level.
39. The WLAN terminal of Claim 1, wherein the user
 communications are audio communications.
- 30 40. The WLAN terminal of Claim 1, wherein the user
 communications are audiovisual communications.
41. The WLAN terminal of claim 9, wherein the audiovisual
35 communications are video conferencing communications.

42. The WLAN terminal of Claim 1, the user communications are video communications.

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